

In the Specification

At page 1 of the application, delete the heading "CROSS REFERENCE TO RELATED APPLICATION" and the entire associated paragraph.

At page 9, replace the first paragraph with the following:

Once the stack 80 has been properly positioned, the back cover element 50 is positioned over the stack as shown in Fig. 8D. Again, care is taken to ensure that the edges of the cover element 50 abut the respective wall members 78B and 78C of the guide apparatus. As shown in Fig. 8E, the flap member 60A is lifted up and rotated around fold line 62 (Fig. 2) so as to expose release liner 64. Release liner 64 is then removed as shown in Fig. 8F. The user then lifts the spine element 70 portion of back cover element 50 and wraps the spine element tightly around the edge 82 (Fig. 8B) of the stack 80 while firmly holding the stack in place, as shown by arrow [[86]] 87 of Fig. 8G. Preferably, there are periodic gaps 63A in the adhesive (Fig. 8F) so that a user can place a finger or thumb on the gap, so as to apply downward pressure on the stack with one hand while wrapping the spine element 70 with the other hand. The gaps 63A, typically three in number, are about $\frac{3}{4}$ of an inch square and are equally spaced along the length of the adhesive. The grooves 74A (Fig. 6) facilitate this folding of the spine element around the longitudinal axis of the spine element.

At page 9 and continuing through page 10, replace the paragraph with the following:

Referring to Fig. 8H, the release liner 66 on the underside of flap member 60A is then removed thereby exposing pressure sensitive adhesive 65. The flap member [[65]] 60A is then pressed down, securing the flap member to the underlying exposed adhesive 63 and the spine element 70 extension as shown in Fig 8I. At this point, the front and back cover elements 50 and 52 are secured together by the pressure sensitive adhesives 63 and 65. Fig. 8J is a schematic representation of the book at this point (and not to scale), showing the major components of the back and front cover elements 50 and 52 and the stack 80. As can be seen,

extension 70A of the spine element 70, that portion of the element that extends past fold 70C, is disposed in the pocket defined by flap member 60A and bottom sheet 58 of the back cover element 50. The stack 80, which is not yet secured to the front and back cover elements, acts as a form for folding the spine element at the appropriate location 70C, that location being a function of the thickness of the stack. For thinner stacks, extension 70A will extend further into the pocket formed between flap member 60A and bottom sheet 58 and for thicker stacks, the extension will be smaller. Note that in an actual bound book, adhesives 63 and 65 (not depicted) will cause the flap member [[56]] 60A to adhere directly to the bottom sheet 58 in those locations where the spine element extension 70A is not present, with the open spaces as shown in the Fig. 8J schematic diagram not being present.

At page 12, replace the first full paragraph and the next paragraph with the following:

Once the stack [[82]] 80 is in position, back cover element 98 is positioned over the stack, as shown in Figs. 12D and 12E, with the release liner 102 on the user's right. The orthogonal edges of the back cover element 98 are positioned abutting the respective wall members 78B and 78C. Next, release liner 102 is removed as shown in Fig. 12F, thereby exposing the underlying pressure sensitive adhesive 106. As shown in Fig. 12G, the user then wraps the free edge of the spine element 70 tightly around the edge of the stack with one hand, while holding the stack down with the other hand. Again, gaps 106A are periodically formed in pressure sensitive adhesive 106 so that the user can hold the stack in place without contacting the adhesive. The adhesive 106 function to secure the free edge of the spine element 70 to the outer sheet 104A. Thus, the front and rear cover elements 96 and 98 are secured together.

Fig. 12H is a schematic representation of the resultant structure [[110]], with the front and rear cover elements 96 and 98 folded slightly outward from the stack 80 for purposes of illustration. The spine element 70 has a bend 70C, the location of which is a function of the thickness of the stack 80, as is the length of the spine element extension 70A secured to the outer sheet 104A by adhesive 106. Note that there will typically be some amount of exposed pressure sensitive adhesive 106. In the first embodiment, this adhesive is covered by flap member 60A (Fig. 8J). As will

become apparent, the exposed adhesive 106 in the second embodiment will become covered by the hardcover to be subsequently applied. The structure [[110]] is then carefully lifted from the guide apparatus 78 and placed in the heating unit 88 as shown in Fig. 8K so as to activate adhesive 74 (Fig. 6) of the spine element 70. Once the structure has been heated for the requisite time, it is removed and placed on a cooling rack.

At page 17, replace the first full paragraph with the following:

The sequence for adding the hardcover assembly 108 will now be described, starting with reference to Fig. 18A. The opened hardcover assembly 108 is first positioned on the guide apparatus receiving surface 142, with the upper release liners 136A and 136B facing upwards. As indicated by arrow 152, the hardcover assembly is moved along the surface [[42]] 142 of the guide apparatus until the respective orthogonal edges of cover section 108B are positioned under the ledge member 146, abutting the inner edge 144A of the stop member 144A, as shown in Fig. 17. Thus, the outer edge 146A of the ledge member 146 will be positioned a fixed distance X from the edge of cover 108B along the full length of both orthogonal segments of the ledge member 146 as shown in Fig. 17. The outer edge 146A will provide a guide for positioning the bound stack 110, as will be described. A modified version of guide apparatus 140 is disclosed in co-pending U.S. patent application number 10/385,960 filed on March 10, 2003 and entitled "Guide Apparatus of Use in Making a Hardcover Book", the contents of which are fully incorporated herein by reference. Among other things, the guide apparatus disclosed in application number 10/385,960 discloses structure for providing support for the edge of stack 110 along the full height of the stack, whereas outer edge 146A of apparatus 140 provides support only at the lower portion of the stack.

At page 19, replace the first full paragraph with the following:

As shown in Fig. 18K, the user then lifts cover section 108A up and rotates the cover section away from stack 110, with a narrow strip of liner sheet 104A of the stack remaining secured to cover section 108A. This permits upper major release liner 136A to be separated from hardcover assembly 108 thereby exposing the

remainder of pressure sensitive adhesive layer 134A. Cover 108A is then placed rotated back down onto stack 110, where the edges of the cover should again be in contact with the respective surfaces of stops 148A, 148 and 148C, as shown in Fig. 18L by arrows [[58]] 159. The user then presses down on cover section 108A as shown in Fig. 18M thereby securing the cover section 108A to the remainder of folded liner sheet 104A of stack 110. This completes the binding sequence, including the application of the hardcover assembly 108.

At page 21, replace the first full paragraph with the following:

Also, it would be possible to have major and minor release liners, such as liners 138B and 136B, formed from one sheet, but separated by perforations 139 as shown in Fig. 24. A user would then separate the minor release liner 138B from the major release liner 136B by simply tearing the sheet along the perforations. In addition, it would be possible to use a single release liner for each respective cover section 108A and 108B which covered the entire surface of the pressure sensitive adhesive 134A and 134B. Fig. 23 shows, in schematic form, the single release liner [[141]] 145 as part of adhesive sheet structure 119B (the bottom sheet 122B is not shown). At the step which corresponds to Fig. 18B, the user folds the release liner [[141]] 145 at fold line [[141A]] 145A over on itself to expose a narrow strip of adhesive 134B near the spine as shown in Fig. 23. The user then places the stack 110 on the folded release liner, similar to the step shown in Fig. 18C and forces the stack 110 down on the exposed adhesive, similar to the step shown in Fig. 18D. The stack 110 is then resting on the exposed adhesive and the folded release liner [[141]] 145. The user then lifts the edge of the stack and removes the folded release liner [[141]] 145 in a manner similar to the removal of liner 136B shown in Fig. 18E. A similar folding step can be carried out in connection with the step shown in Fig. 18H in connection with release liner 136A. This approach is not preferred since the user has to carry out the additional folding steps.

At page 22, replace the first full paragraph and the following two paragraphs with the following:

Referring to the drawings, a folded cover element 158 is included, formed from a folded sheet of heavy paper such as 80 lb. Bristol velum. The folded cover element 158 includes an inner half 160B and an outer half 160A. A spine element [[154]] 155 is provided which includes a substrate [[152]] 151, similar to substrate 72 (Fig. 6) of the earlier-described embodiment. Substrate [[152]] 151 supports a heat-activated adhesive 153, similar to adhesive 74. Adhesive 153 is provided with spaced apart grooves 156, similar to grooves 74A of the earlier embodiment. Sheet 160A of the folded cover element 158 is secured to the spine element 154 by way of adhesive 153.

Although not required, it is preferred that spine element [[154]] 155 be pre-folded at point [[152A]] 151A to assist in assembly of the bound book. As shown in Fig. 25, the vertical component of the spine element [[154]] 155, the portion that is attached to the folded cover element 158, is typically 0.25 inches. The horizontal component of the spine element, which is typically 1.25 inches, will accommodate stacks up to 1.0 inches. In the event stacks of even greater width are to be bound, the horizontal component can be increased, but this will result in some degradation in the appearance of the bound book. In order to improve the appearance of the bound books for wide stacks, binding structures having wider horizontal components can be used. The disadvantage, of course, is the need to maintain an inventory of different sized binding apparatus. In that the vertical component of the adhesive 153 will not be folded, there is no requirement that this portion of the adhesive be provided with grooves 156.

A strip of pressure sensitive adhesive 162, similar in composition and thickness to adhesive 63 of earlier-described embodiment, extends along the longitudinal edge of the spine element [[154]] 155. Adhesive 162 is covered by a release liner 164, similar in composition to release liner 64 of the earlier embodiment.

At page 23, replace the first paragraph and the subsequent paragraph continuing on to page 24 with the following:

The manner in which the Fig. 25 embodiment 150 of the subject binding apparatus is used will now be described. Reference is also made to Fig. 26 that shows the partially assembled book. Neither Fig. 25 nor Fig. 26 is drawn to scale,

with both depicting a slightly exploded view for purposes of clarity. First, the binding apparatus is positioned on a guide apparatus similar to apparatus 78 of Fig. 12A. The folded cover element is positioned on the work surface 78A of the guide apparatus, with the spine section [[154]] 155 to the user's right. The two respective edges of the folded cover element 158 are positioned abutting respective wall members 78B and 78C of the guide apparatus, in a manner similar to folded outer sheets 100A and 100B of the earlier embodiment. Next, a stack 166 (Fig. 26) of sheets to be bound is positioned over the folded cover section, similar to stack 80 of Fig. 12C. The respective edges of the stack are positioned abutting respective wall members 78B and 78C so that the edges of the stack will be aligned with the edges of the folded cover element. The user then places a conventional folded end sheet 168 (Fig. 26) on the stack, with the fold positioned adjacent the spine element 150. End sheet 168 is preferably made of heavy paper such as 80 lb Bristol vellum. While supporting the stack with one hand as shown in Fig. 12G, the user then tightly wraps the spine section [[154]] 155 around the edge of the stack 166, thereby causing a second fold [[152B]] 151B to be formed in the spine section. Fig. 26 shows that binder apparatus and stack at this point of the assembly.

The user then removes the release liner 164, similar to the step depicted in Fig. 12F, so as to expose adhesive 162. The user then presses the exposed adhesive 162 against sheet 168A of the folded end sheet 168. This will secure that stack 166 and the binding apparatus together. The assembly is then carefully placed in a heating unit 88 as shown in Fig. 8K so as to activate adhesive 153 thereby binding the sheets of the stack together and to the substrate [[152]] 151. Pressure sensitive adhesive 162 provides two primary functions. First, the adhesive secures the folded substrate [[152]] 151 in position prior to application of heat by the heating unit. Further, since the heating unit heating element 90 (Fig. 9) applies heat only to the lower surface of the binding apparatus, the adhesive 153 disposed above fold line [[152B]] 151B of Fig. 26 will not be heated and thus will not function to attach that part of the substrate [[152]] 151 above the fold line to sheet 168A. (This is not an issue with folded cover element 158 since sheet 160B is secured by adhesive 153 when the binding apparatus is manufactured.) Thus, adhesive 162 operates to secure that part of substrate [[152]] 151 above fold line [[152B]] 151B to the folded end sheet. Although not preferred, if the user is careful in placement of the assembly in the heating unit after folding, the adhesive 162 need not be used

to hold the assembly together prior to heating. In that event, the release liner 164 need not be removed until after heating is completed so that the primary function of the adhesive is only to secure the substrate to the end sheet 168A.